

ABSTRACT

The A surface inspection apparatus ~~comprises~~ includes a light source section for emitting a first and a second luminous flux ~~and a second luminous flux~~; a first and a second irradiation optical system in which the first and the second luminous flux ~~is~~ are irradiated on the surface of an inspected object at a first and a second irradiation angle, respectively; ~~a second irradiation optical system in which the second luminous flux is irradiated on the surface of an inspected object at a second irradiation angle different from the first irradiation angle~~; a displacement section for relatively displacing an inspected object and an irradiation luminous flux of the irradiation optical system; a light receiving optical system for receiving scattered light of the first and the second luminous flux ~~irradiated by the first irradiation optical system and produced from an inspection object on the surface of an inspected object and scattered light of the second luminous flux irradiated by the second irradiation optical system and produced from an inspection object on the surface of an inspected object~~; a first and a second light receiving section for converting scattered light of the first and second luminous flux ~~received by the light receiving optical system~~ into a first and a second light receiving signal, respectively; ~~a second light receiving section for converting scattered light of the second luminous flux received by the light receiving optical system into a second light receiving signal~~; and a signal forming section for forming a measuring signal on the basis of the first and the second light receiving signal ~~and the second light receiving signal~~. The first and the second light receiving section ~~and the second light receiving section~~ form a first and a second light receiving signal ~~and a second light receiving signal~~ which are different in sensitivity or dynamic range from each other, and synthesizes the first and the second light receiving signal ~~and the second light receiving signal~~ which ~~are different in sensitivity from each other~~ to form a measuring signal.

ABSTRACT

A surface inspection apparatus includes a light source section for emitting a first and a second luminous flux; a first and a second irradiation optical system in which the first and the second luminous flux are irradiated on the surface of an inspected object at a first and a second irradiation angle, respectively; a displacement section for relatively displacing an inspected object and an irradiation luminous flux of the irradiation optical system; a light receiving optical system for receiving scattered light of the first and the second luminous flux; a first and a second light receiving section for converting scattered light of the first and second luminous flux into a first and a second light receiving signal, respectively; and a signal forming section for forming a measuring signal on the basis of the first and the second light receiving signal. The first and the second light receiving section form a first and a second light receiving signal which are different in sensitivity or dynamic range from each other, and synthesizes the first and the second light receiving signal to form a measuring signal.